

LISTING OF CLAIMS

Claims 1-5 have been canceled.

6. (New) A process for cleaning weak acid cation exchange resins comprising:

(a) converting a weak acid cation exchange resin, substantially in neutralized salt form, to a hydrogen-form weak acid cation exchange resin by regenerating with an acid regenerant; and

(b) contacting the hydrogen-form weak acid cation exchange resin with 1 to 15 kilograms of steam per kilogram of hydrogen-form weak acid cation exchange resin at a resin bed temperature of 100 to 180°C for a period of at least one hour.

7. (New) The process of claim 6 wherein the weak acid cation exchange resin is selected from one or more copolymers of crosslinked poly(acrylic acid), crosslinked poly(methacrylic acid), hydrolyzed crosslinked poly((C₁-C₄)alkyl acrylate) and hydrolyzed crosslinked poly(acrylonitrile).

8. (New) The process of claim 6 wherein the acid regenerant in step (a) is selected from one or more of 1 to 15 percent aqueous solutions of sulfuric acid and hydrochloric acid.

9. (New) The process of claim 6 wherein step (b) is conducted at a resin bed temperature of 120 to 140°C.

10. (New) The process of claim 6 wherein the hydrogen-form weak acid cation exchange resin in step (b) is contacted with 2 to 5 kilograms of steam per kilogram of hydrogen-form weak acid cation exchange resin.

11. (New) The process of claim 6 wherein the hydrogen-form weak acid cation exchange resin in step (b) is contacted with steam for 2 to 4 hours.

12. (New) The process of claim 6 further comprising contacting the hydrogen-form weak acid cation exchange resin from step (b) with 0.4 to 5 grams, per kilogram of hydrogen-form weak acid cation exchange resin, of an antimicrobial agent selected from one or more of peroxides, (C₂-C₃)alcohols and inorganic chloride salts.

13. (New) The process of claim 12 wherein the antimicrobial agent is selected from one or more of hydrogen peroxide, peracetic acid, ethanol, isopropanol, sodium chloride and potassium chloride.

14. (New) The process of claim 13 wherein the peroxide is present from 0.5 to 1.5 g peroxide per kg weak acid cation exchange resin.

15. (New) The process of claim 6 further comprising contacting the hydrogen-form weak acid cation exchange resin from step (b) with 2 to 5 bed-volumes of dilute acid and then rinsing the hydrogen-form weak acid cation exchange resin with water.

16. (New) The process of claim 15 wherein the dilute acid is selected from one or more of 0.05 to 1 N aqueous solution of sulfuric acid, hydrochloric acid and phosphoric acid.

17. (New) A method for treating water for use as drinking water comprising contacting water to be treated with a bed of weak-acid cation exchange resin that has been cleaned by (a) converting the weak acid cation exchange resin, substantially in neutralized salt form, to a hydrogen-form weak acid cation exchange resin by regenerating with an acid regenerant; and (b) contacting the hydrogen-form weak acid cation exchange resin with 1 to 15 kilograms of steam per kilogram of hydrogen-form weak acid cation exchange resin at a resin bed temperature of 100 to 180°C for a period of at least one hour.